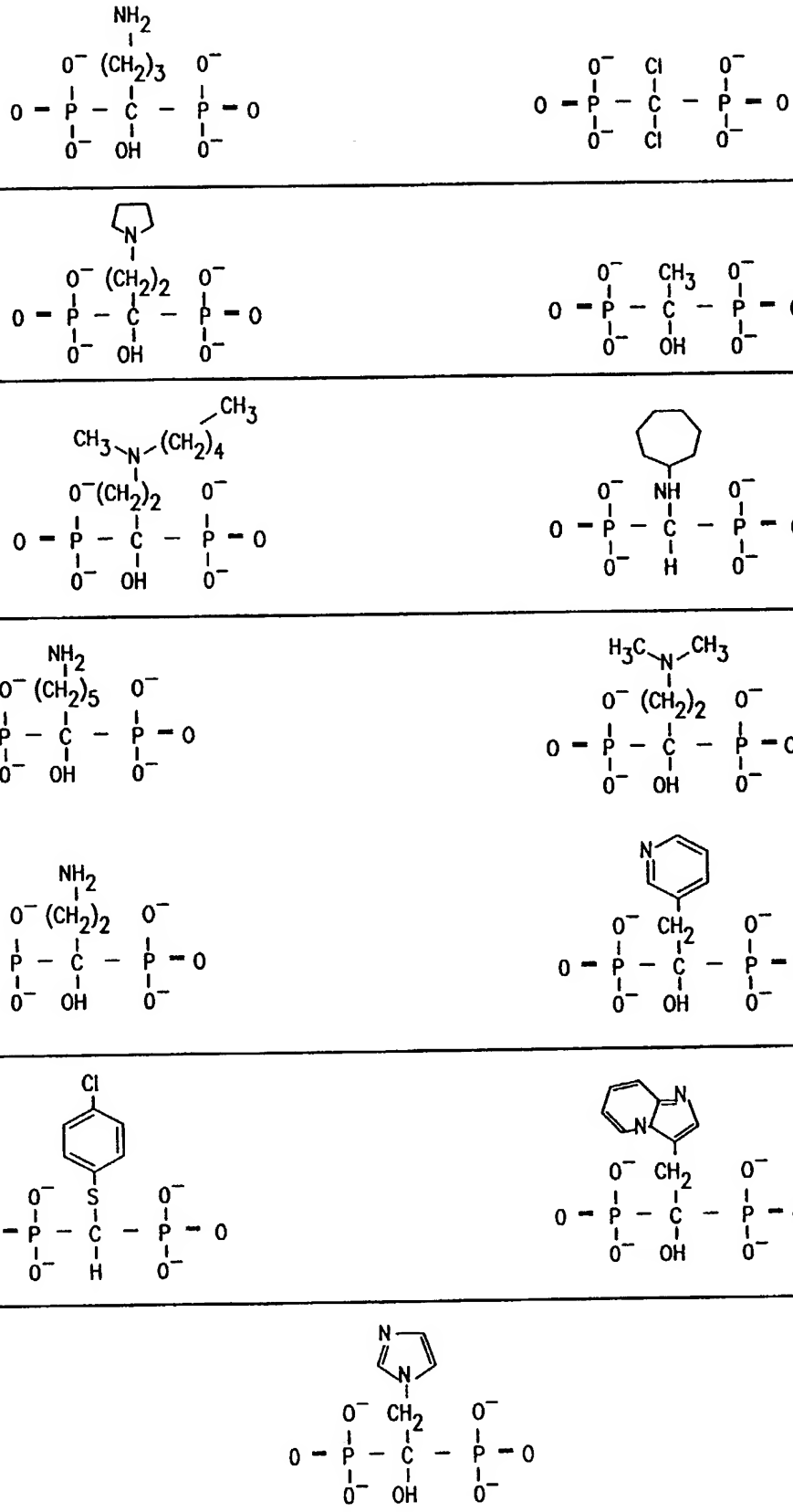
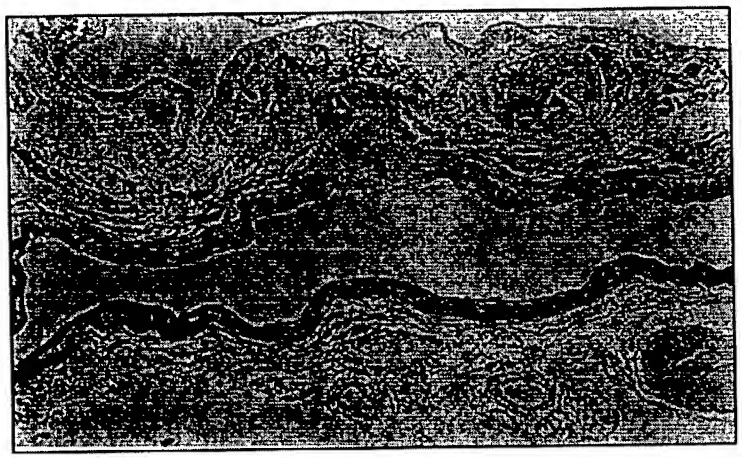


Fig. 1

NO ALENDRONATE



ALENDRONATE AT
0.25 mg P/kg/day

Fig. 2

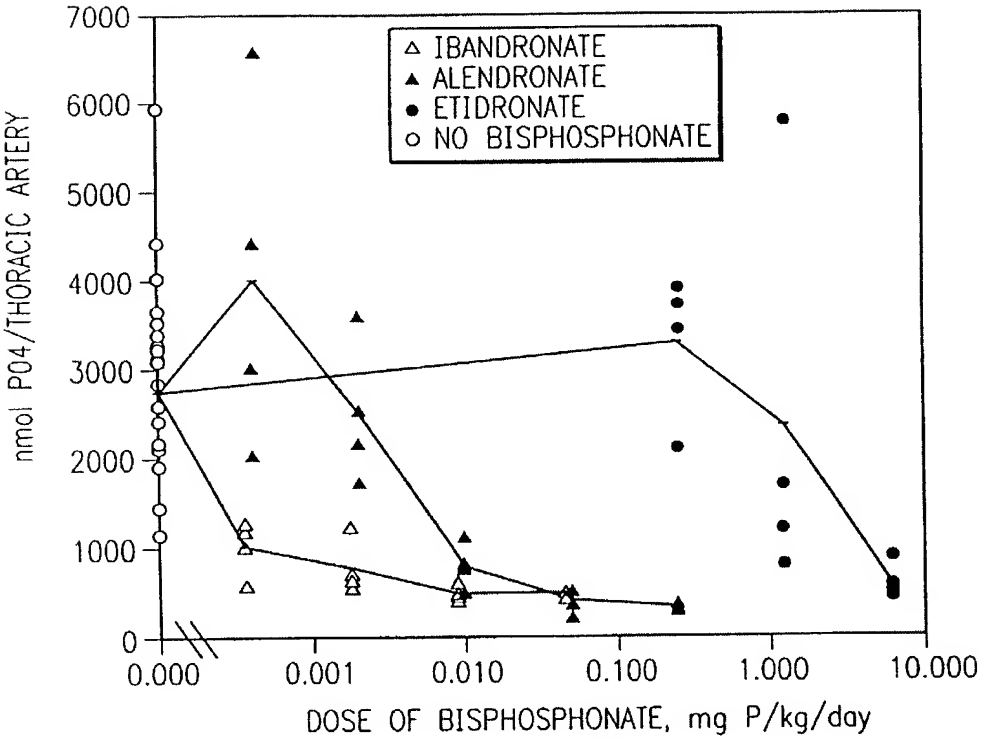

IBANDRONATE
ALENDRONATE
ETIDRONATE
NO BISPHOSPHONATE
nmol P04/THORACIC ARTERY
7000
6000
5000
4000
3000
2000
1000
0
0.000
0.001
0.010
0.100
1.000
10.000
DOSE OF BISPHOSPHONATE, mg P/kg/day

Fig. 3

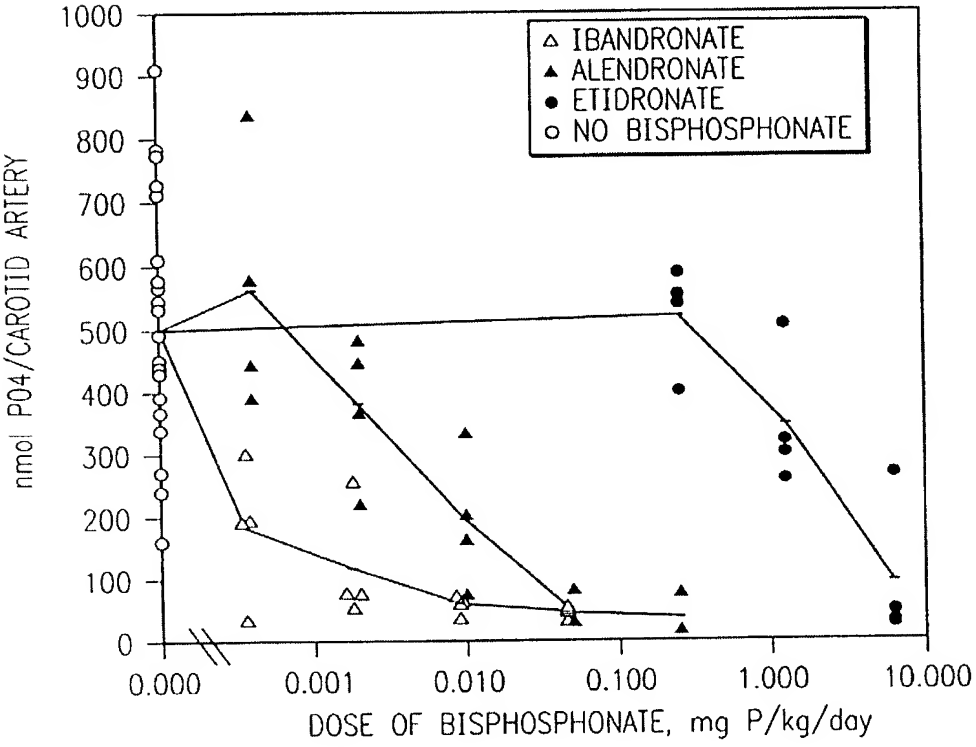

IBANDRONATE
ALENDRONATE
ETIDRONATE
NO BISPHOSPHONATE
nmol P04/CAROTID ARTERY
1000
900
800
700
600
500
400
300
200
100
0
0.000
0.001
0.010
0.100
1.000
10.000
DOSE OF BISPHOSPHONATE, mg P/kg/day

Fig. 4

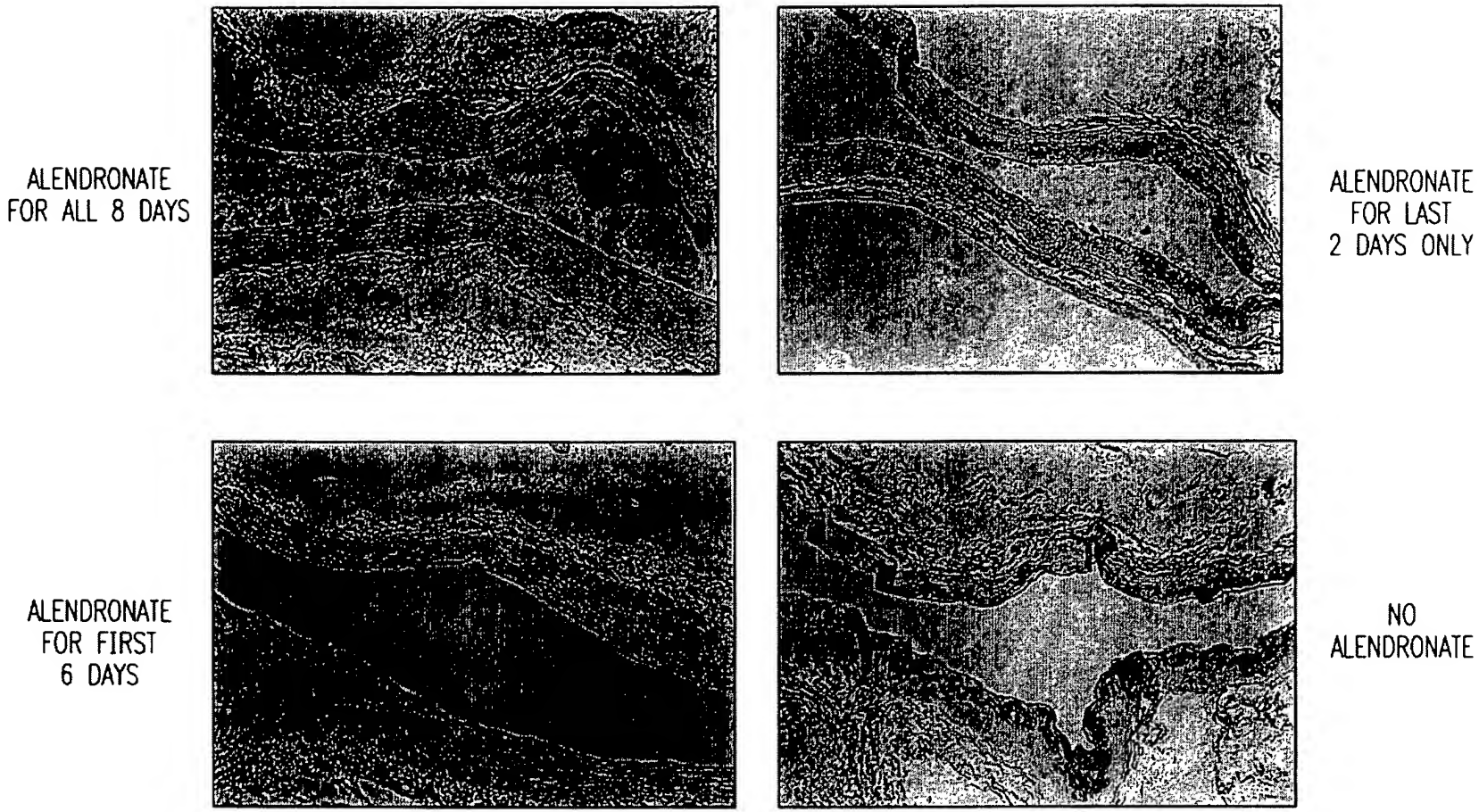

ALENDRONATE
FOR ALL 8 DAYS
ALENDRONATE
FOR LAST
2 DAYS ONLY
ALENDRONATE
FOR FIRST
6 DAYS
NO
ALENDRONATE

Fig. 5

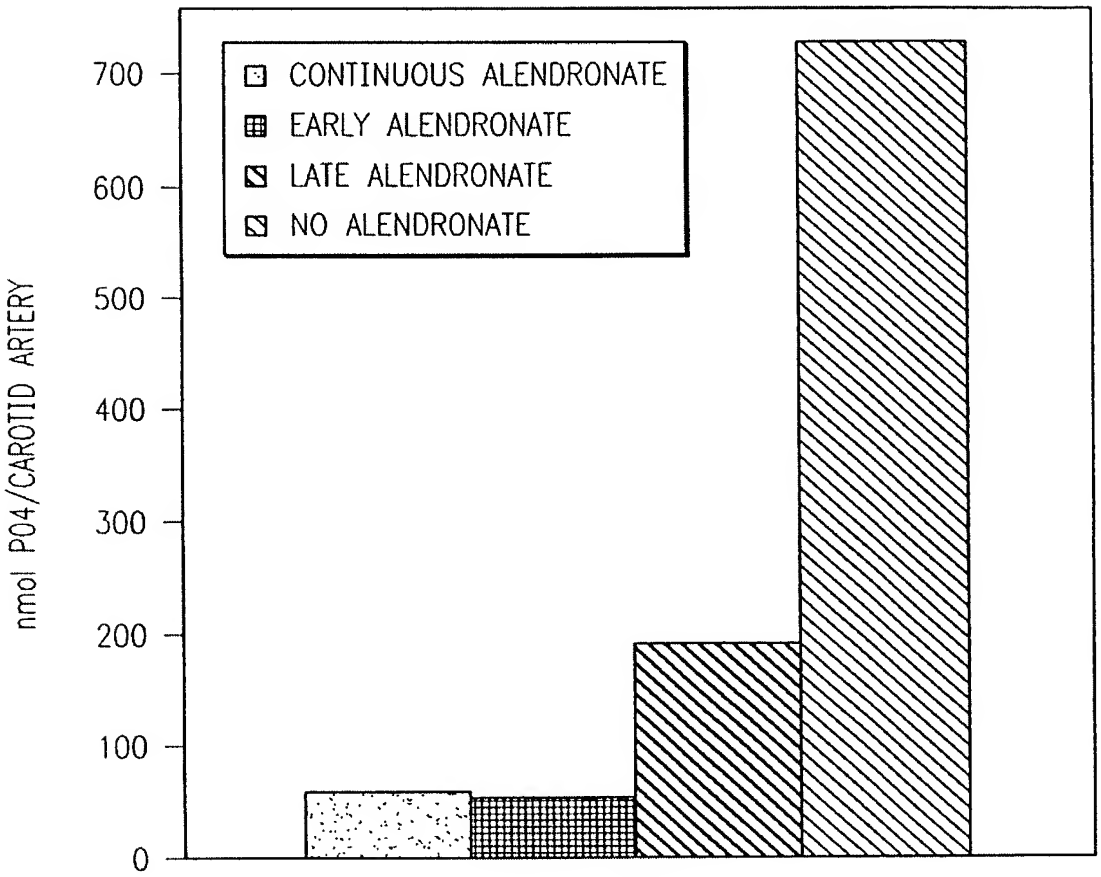

CONTINUOUS ALENDRONATE
EARLY ALENDRONATE
LATE ALENDRONATE
NO ALENDRONATE
nmol P04/CAROTID ARTERY
0
100
200
300
400
500
600
700

Fig. 6

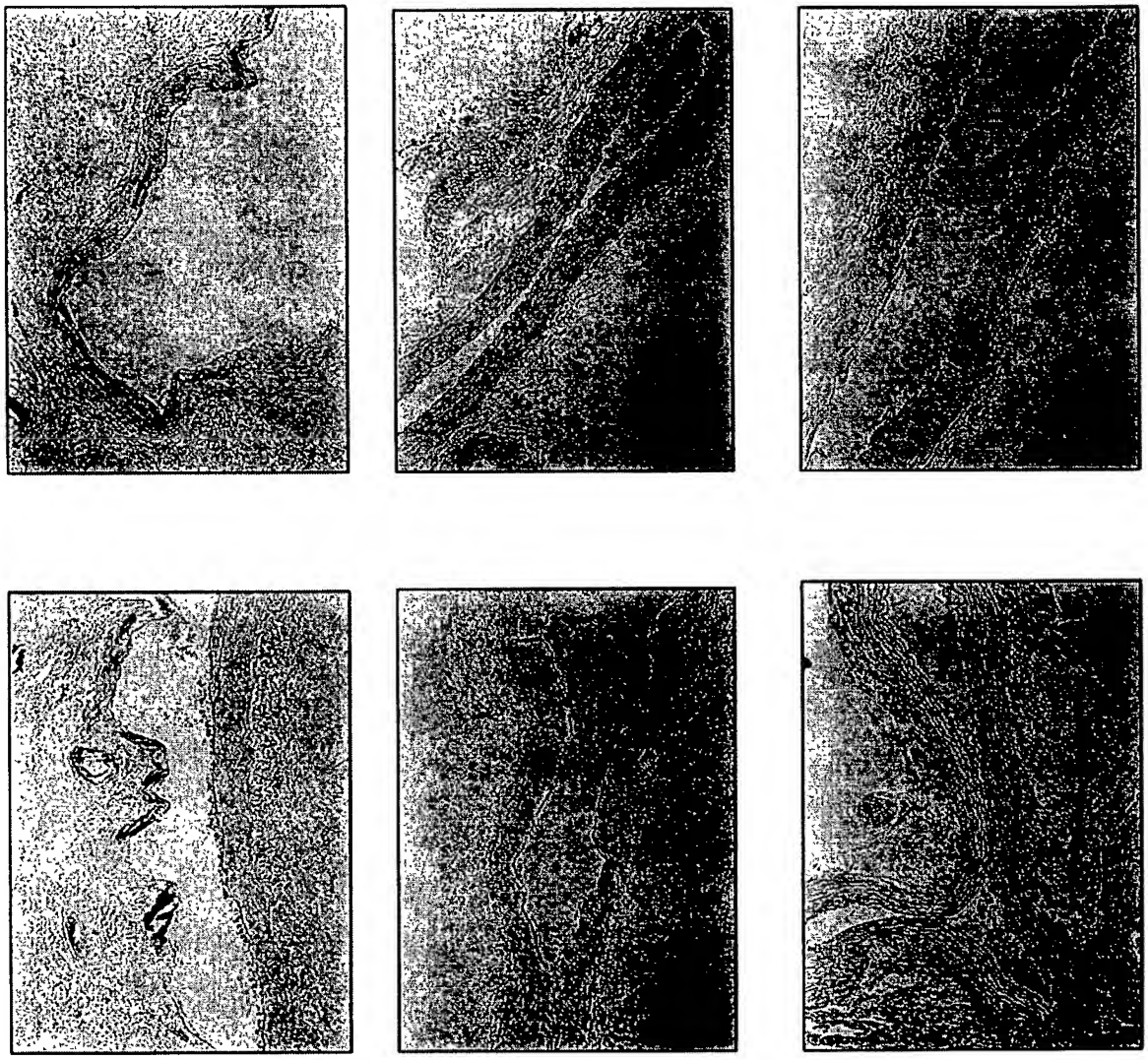
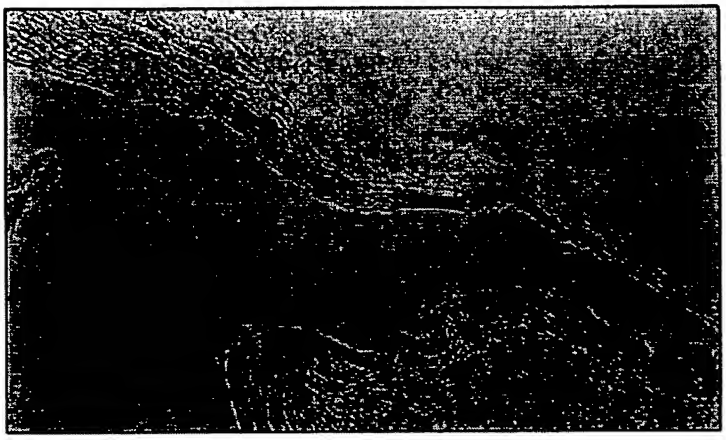

NO
BISPHOSPHONATE
IBANDRONATE AT
0.01 mg P/kg/day
ALENDRONATE AT
0.25 mg P/kg/day

Fig. 7

NO
ALENDRONATE

ALENDRONATE AT
0.025 mg P/kg/day



ALENDRONATE AT
0.25 mg P/kg/day

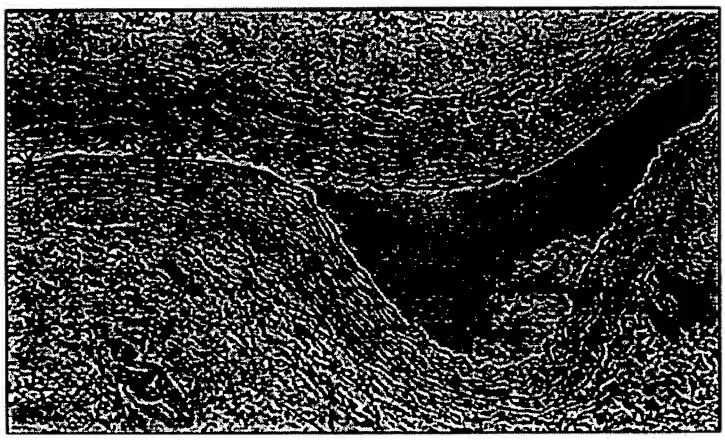


Fig. 8

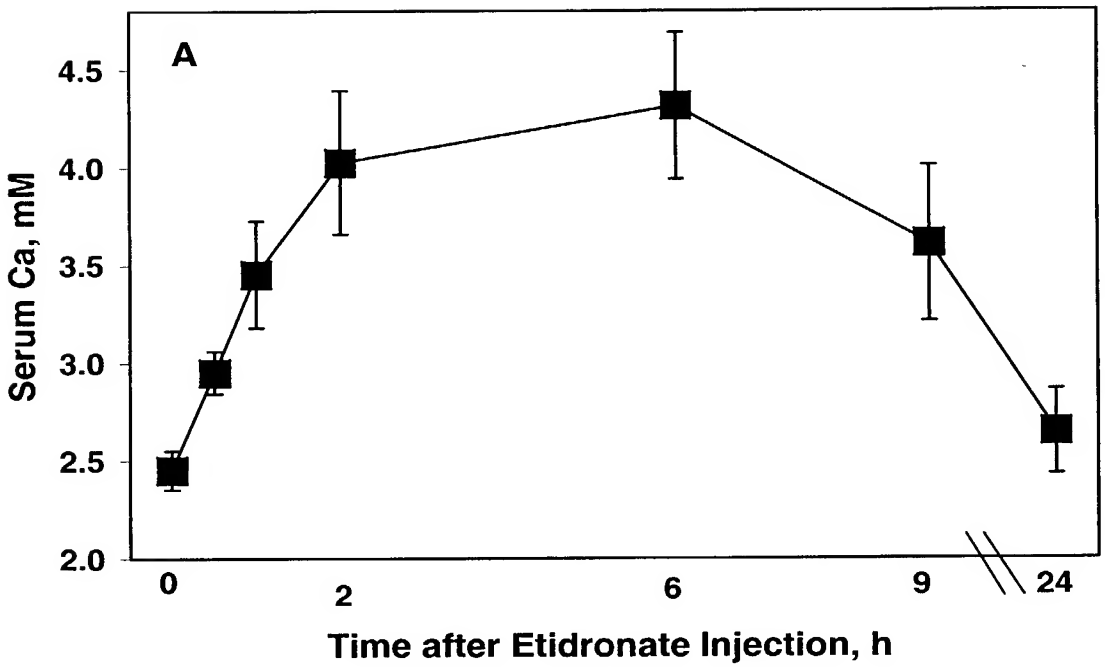

A
4.5
4.0
3.5
3.0
2.5
2.0
Serum Ca, mM
0
2
6
9
24
Time after Etidronate Injection, h

Fig 9A

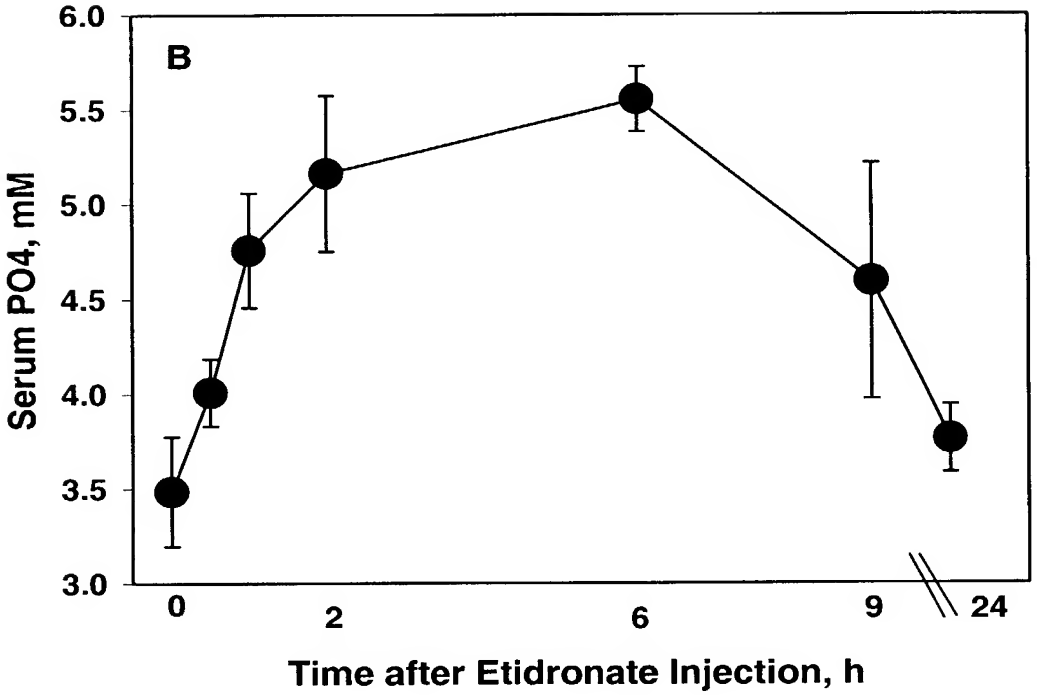

B
6.0
5.5
5.0
4.5
4.0
3.5
3.0
Serum PO4, mM
0
2
6
9
24
Time after Etidronate Injection, h

Fig. 9B

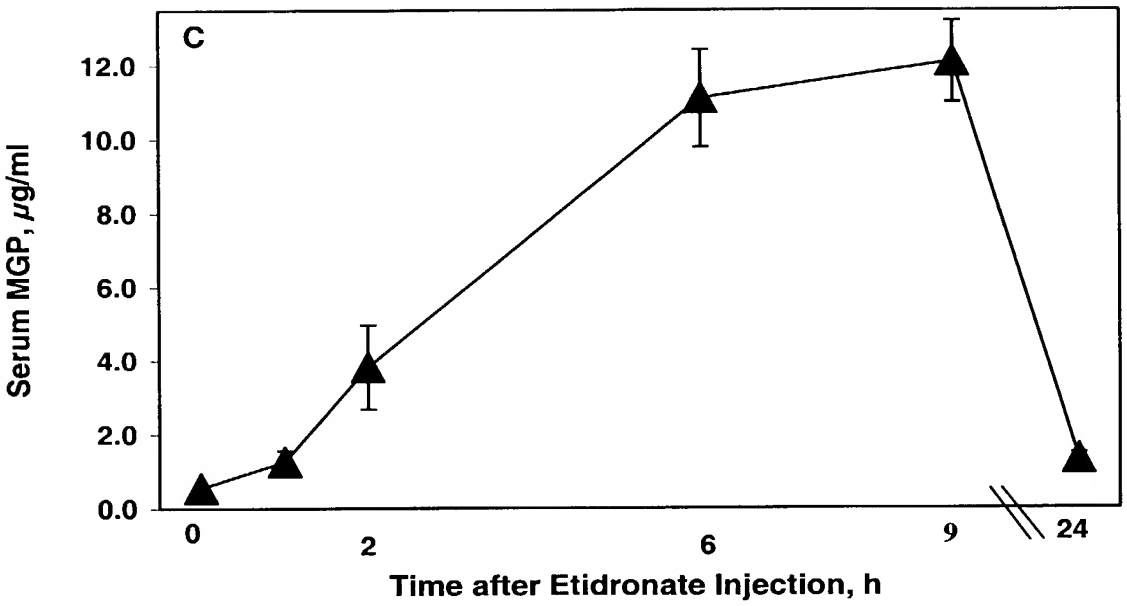

C
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Serum MGP, μg/ml
0
2
6
9
24
Time after Etidronate Injection, h

Fig. 9C

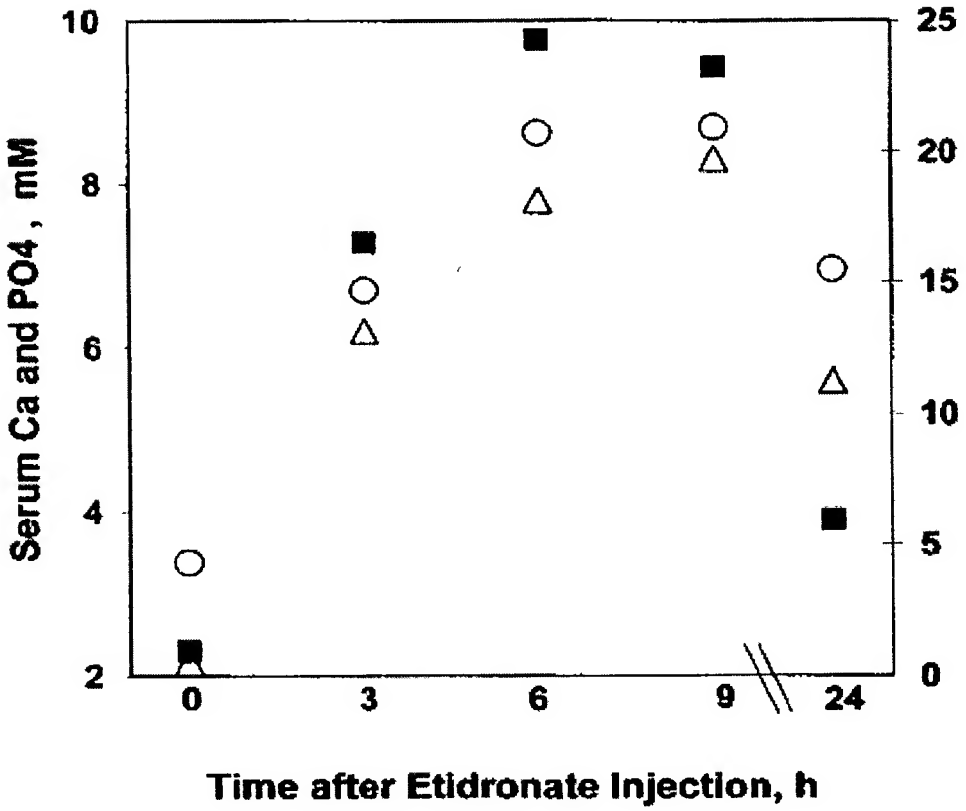

10
8
6
4
2
25
20
15
10
5
0
0
3
6
9
24
Serum Ca and PO4 , mM
Time after Etidronate Injection, h

Fig. 10

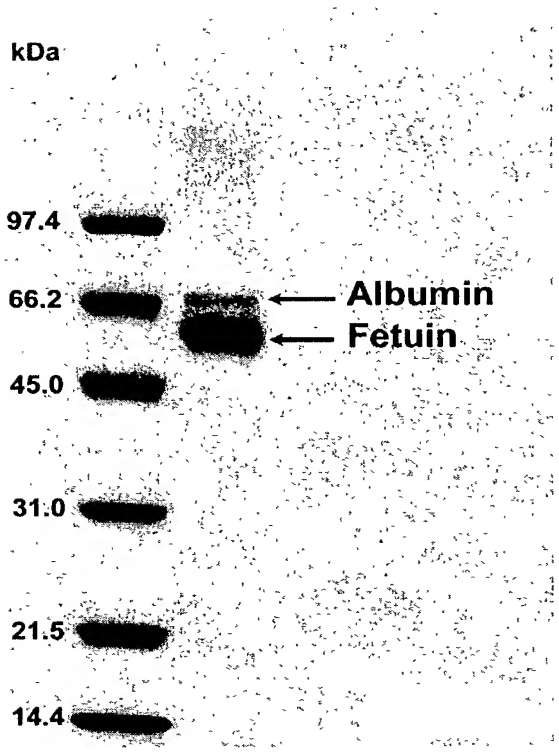


Fig. 11

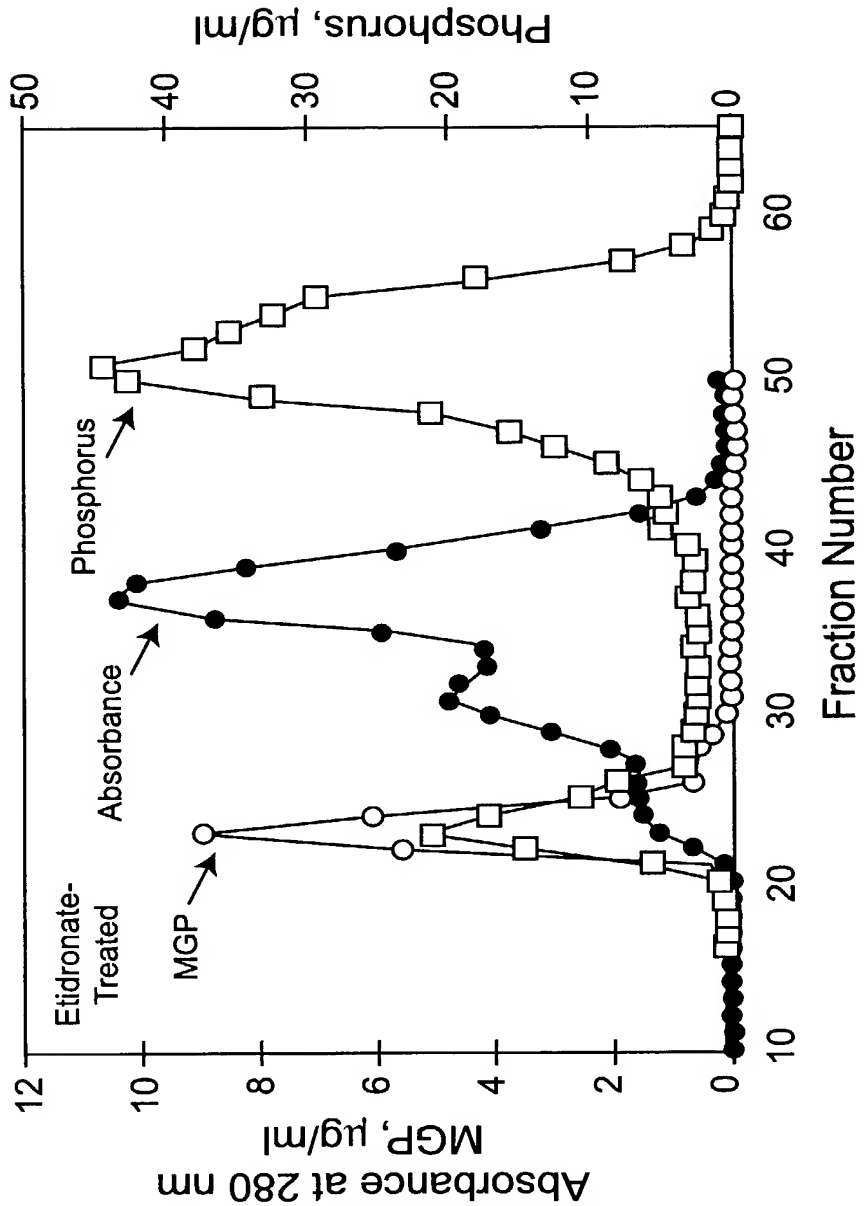

Absorbance at 280 nm
MGP, µg/ml
Phosphorus, µg/ml
Fraction Number
Etidronate-Treated
MGP
Absorbance
Phosphorus
0
2
4
6
8
10
12
10
20
30
40
50
60

Fig. 12A

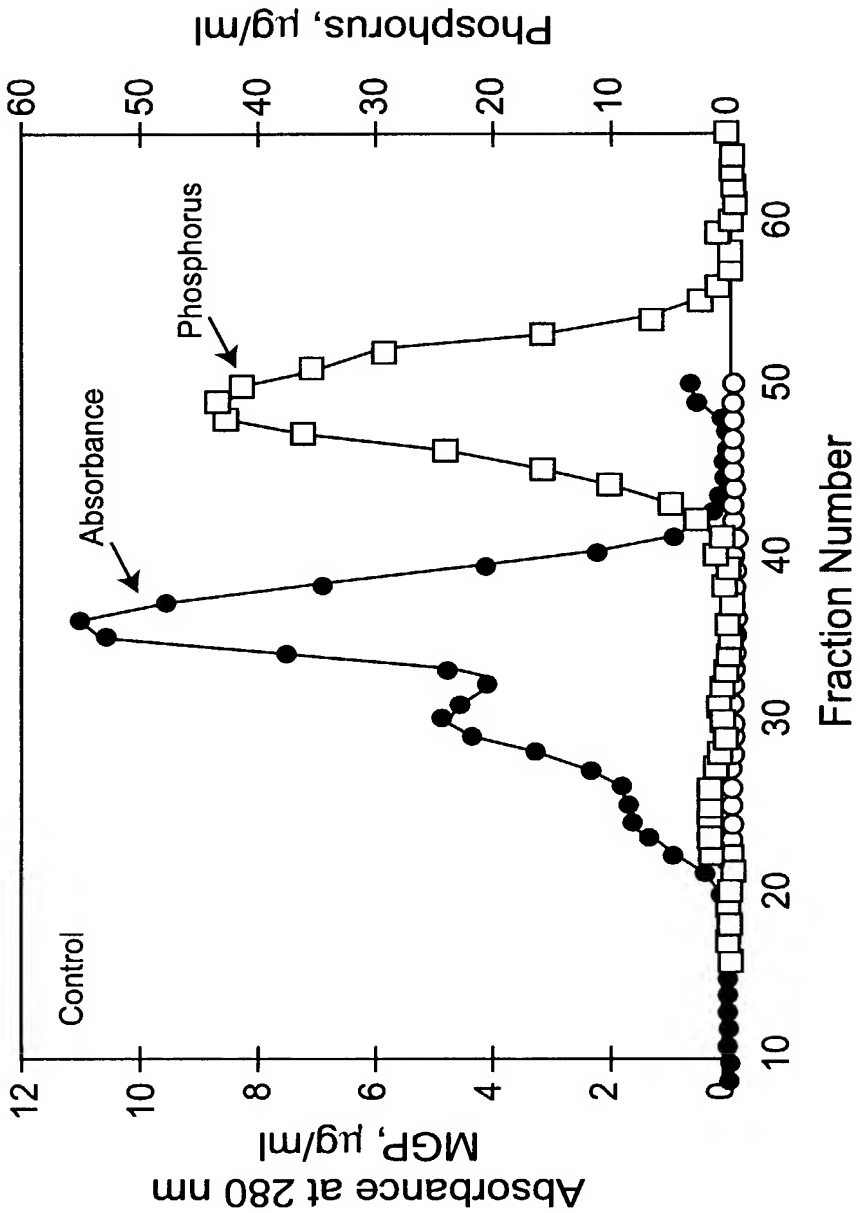

Absorbance at 280 nm
MGP, µg/ml
Phosphorus, µg/ml
Fraction Number
Control
Absorbance
Phosphorus
0
2
4
6
8
10
12
10
20
30
40
50
60

Fig. 12A

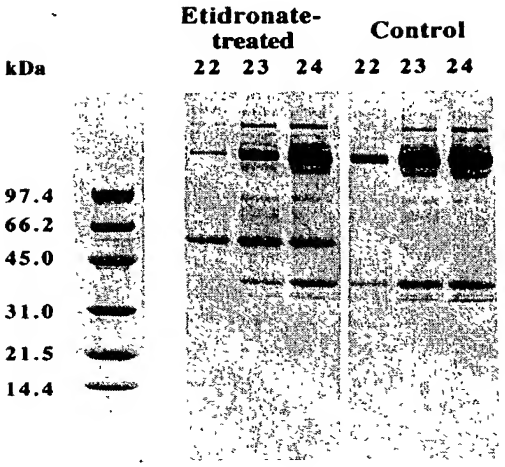

Etidronate-treated
Control
kDa
22 23 24
22 23 24
97.4
66.2
45.0
31.0
21.5
14.4

Fig. 13

Fig. 14

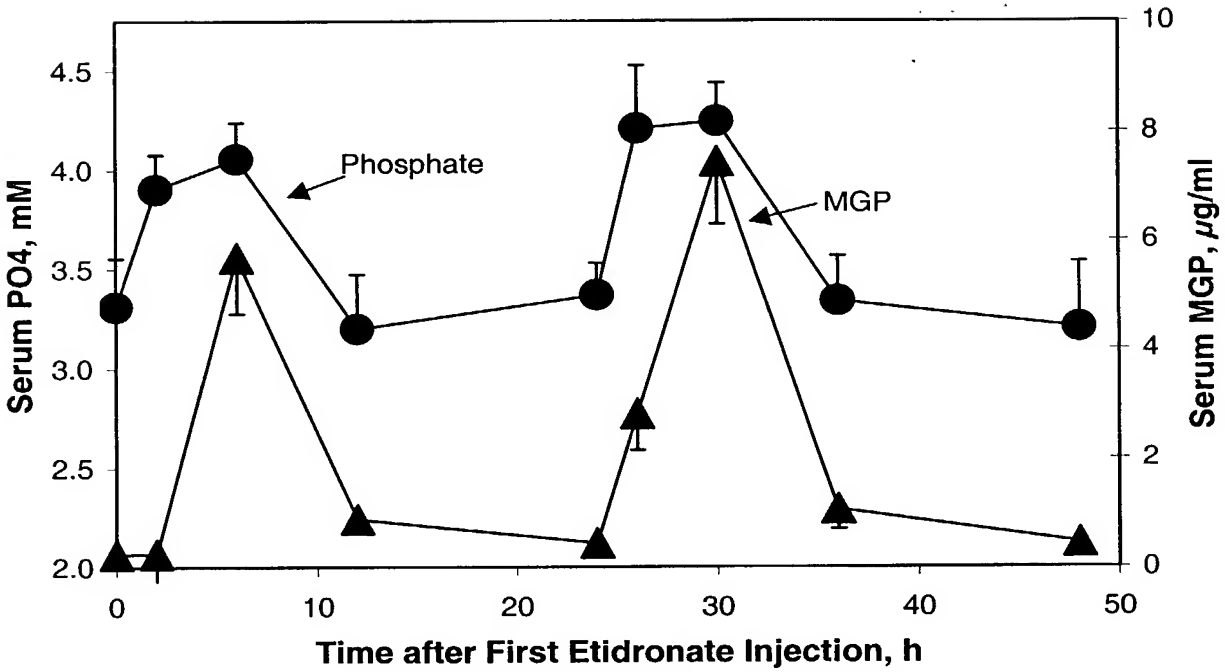

Serum PO4, mM
4.5
4.0
3.5
3.0
2.5
2.0
Phosphate
MGP
10
8
6
4
2
0
Serum MGP, µg/ml
0
10
20
30
40
50
Time after First Etidronate Injection, h

Fig. 15

A
Serum Ca, mM
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
0
3
6
9
24
Time after Etidronate Injection, h

Fig. 16A

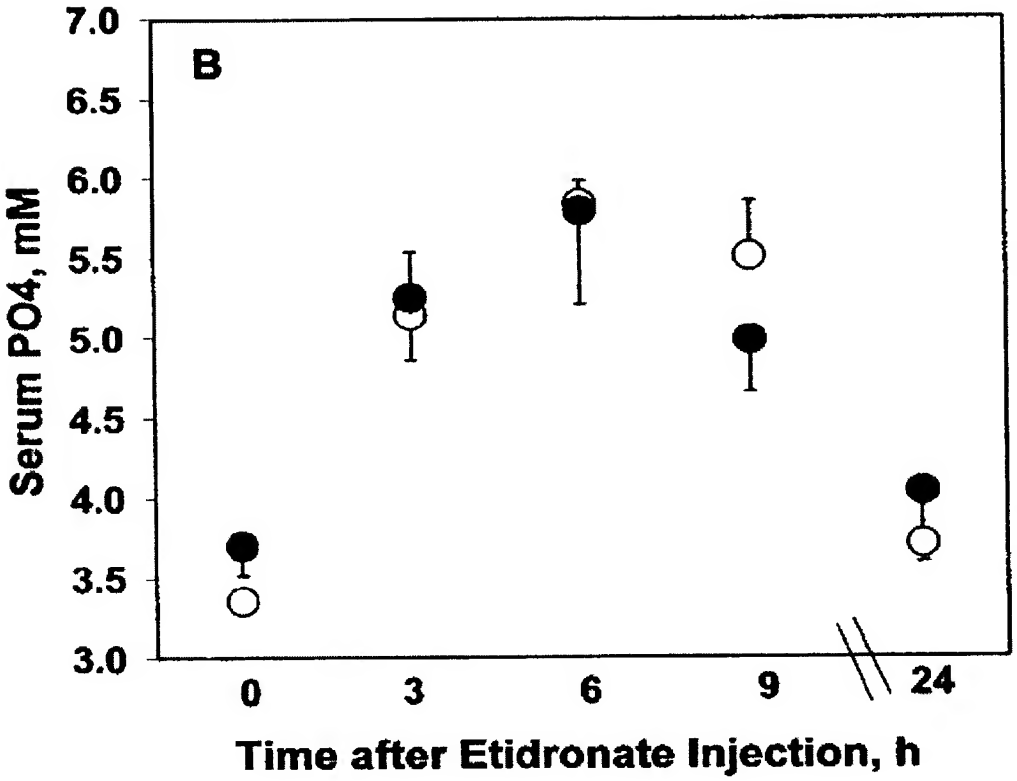

B
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
Serum PO4, mM
0
3
6
9
24
Time after Etidronate Injection, h

Fig. 16B

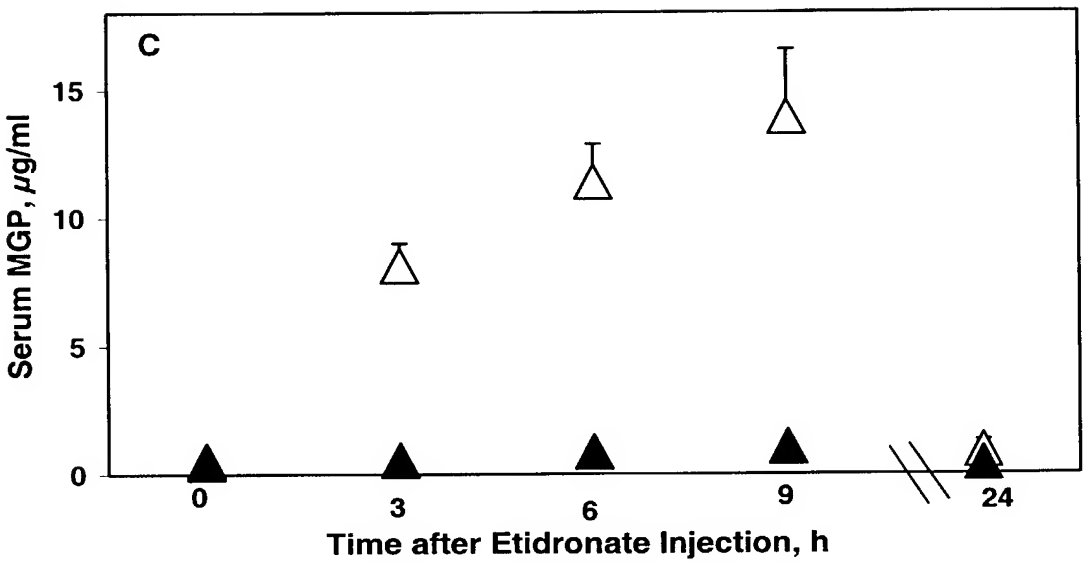

C
15
10
5
0
Serum MGP, μg/ml
0
3
6
9
24
Time after Etidronate Injection, h

Fig. 16C